

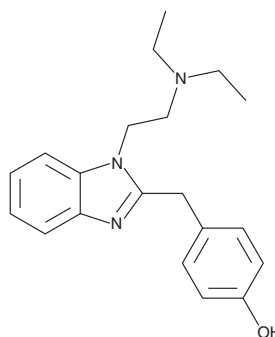
PRODUCT INFORMATION



3-Methylindole

Item No. 39231

CAS Registry No.: 110151-18-3
Formal Name: 3-methyl-1H-indole
Synonyms: NSC 122024, Skatole
MF: C₂₀H₂₅N₃O
FW: 323.4
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

3-Methylindole is supplied as a solid. A stock solution may be made by dissolving the 3-methylindole in the solvent of choice, which should be purged with an inert gas. 3-Methylindole is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol

Description

3-Methylindole is an endogenous metabolite of tryptophan (Item No. 29600) and fecal odorant.^{1,2} It is formed from tryptophan via an indole-3-acetate (Item No. 16954) intermediate by gut microbiota. 3-Methylindole (1 mM) induces transactivation of the aryl hydrocarbon receptor (AhR) in a reporter assay using Caco-2 cells.³ It also induces p38 MAPK activation and apoptosis in Caco-2 cells when used at a concentration of 1 mM. Intraruminal administration of 3-methylindole (0.2 g/kg) induces respiratory distress in sheep.⁴ It has been found in cigarette smoke.⁵

References

1. Jensen, M.T., Cox, R.P., and Jensen, B.B. 3-Methylindole (skatole) and indole production by mixed populations of pig fecal bacteria. *Appl. Environ. Microb.* **61(8)**, 3180-3184 (1995).
2. Zhou, Y., Hallis, S.A., Vitko, T., et al. Identification, quantification and treatment of fecal odors released into the air at two wastewater treatment plants. *J. Environ. Manage.* **180**, 257-263 (2016).
3. Kurata, K., Kawahara, H., Nishimura, K., et al. Skatole regulates intestinal epithelial cellular functions through activating aryl hydrocarbon receptors and p38. *Biochem. Biophys. Res. Commun.* **510(4)**, 649-655 (2019).
4. Popp, J.D., McAllister, T.A., Kastelic, J.P., et al. Effect of melengestrol acetate on development of 3-methylindole-induced pulmonary edema and emphysema in sheep. *Can. J. Vet. Res.* **62(4)**, 268-274 (1998).
5. Hoffmann, D. and Rubin, J. Chemical studies on tobacco smoke I. The quantitative determination of indoles in cigarette smoke. *Beiträge. zur Tabakforschung* **3(6)**, 409-414 (1966).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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